NORTH CAROLINA FOREST SERVICE NC

Forest Health Notes

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Low Southern Pine Beetle Activity Predicted for Private Forestlands of North Carolina in 2009

The North Carolina Division of Forest Resources attempts to predict southern pine beetle (SPB) population levels each spring through the use of winter survey flights and springtime pheromone-baited insect traps. Trap data is included in a model developed by the Texas Forest Service to provide early predictions based upon the ratio of SPB to their primary predator, the clerid beetle.

The SPB surpasses all other forest pests for the amount of damage it has caused to pine forests in the past and periodic outbreaks occur on a regular basis over the majority of our state. Last year, SPB activity was again low with spots last summer mostly confined to Tyrrell and Hyde Counties. Additionally, Chatham and Granville Counties reported one and two SPB spots, respectively. The U.S. Forest Service identified multiple small SPB spots present in the Croatan National Forest, though no SPB activity has been reported in the areas adjacent to the national forest. While no epidemic outbreaks are anticipated, the division will continue to closely monitor for beetle activity in the coastal plain where spots were found last year.

This year, trapping data indicates a declining or low year for populations of SPB in North Carolina. Overall, the surrounding states are also predicted to have low or static populations of SPB this year with a few exceptions. Buckingham and Cumberland Counties in Virginia, Bulloch and Green Counties in Georgia, and Abbeville County in South Carolina are predicted to see some SPB activity this summer.

Due to budget and scheduling constraints, winter aerial surveys were not conducted in every district. The districts that did conduct winter flights reported very little pine mortality. Though low SPB populations are predicted, localized and sporadic infestations may occur anywhere in the state. Activity is most likely in pine stands that are overstocked, over mature or stagnant, or have poor soil drainage. Forests affected by littleleaf disease, annosus root rot, and other causes of tree stress may also be susceptible to SPB infestation.

Southern pine beetle aerial detection flights will be conducted again this summer to document any new SPB activity, as well as any other significant damage to our forests. Ips and black

turpentine beetle (BTB) damage are expected to be less prevalent this year, as the majority of the state is recovering from the drought stress of the last few years.

If suspected SPB spots are found during aerial surveys, proper identification during ground checks is important. Ips beetle galleries are H-, X-, Y- or I-shaped rather than winding S-shaped galleries indicative of southern pine beetle. BTBs attack lower portions of the trunk and are less likely to kill trees than SPB or Ips. Populations of Ips and BTB usually subside after trees regain strength when soil moisture is restored by rain. Pest Control staff is available to assist with identification and training in identification and control of bark beetles and other pests.

The North Carolina Division of Forest Resources recommends the use of sound silvicultural practices to prevent SPB damage and encourages landowners to thin overcrowded pine stands (young stands with more 700 trees/acre or older stands with more than120 square feet per acre of basal area). Proper stocking levels promote healthy stands that can better withstand attacks from SPB. The Division continues to provide Southern Pine Beetle Prevention Program cost-share funds (funded through a grant from the USDA Forest Service) for thinning young stands to give them a healthy start and to aid in the prevention of future of SPB outbreaks.

This publication was published in Portable Document Format (PDF) to inform and educate NCDFR personnel and other forestry interests about health issues affecting North Carolina forest resources.